FINDING OF EMERGENCY

The Secretary of the California Department of Food and Agriculture finds that an emergency exists, and that the foregoing adoption of a regulation is necessary for the immediate preservation of the public peace, health and safety, or general welfare, within the meaning of Government Code Section 11346.1 and Public Resources Code (PRC) Section 21080.

Description of Specific Facts which Constitute the Emergency

An adult *Diaprepes abbreviatus* (West Indian sugarcane root borer or Diaprepes root weevil), was detected April 28, 2006, from a residence located in San Diego. On May 1, 2006, through visual inspection, another six adult Diaprepes root weevils were detected in outlying areas surrounding this residence. Additional weevils have been subsequently detected. The number of adult Diaprepes root weevils detected is indicative of an incipient infestation existing in this area.

The Diaprepes root weevil was first detected in California on September 14, 2005, at a residence located in Newport Beach, Orange County. Through visual inspection, another 39 adult Diaprepes root weevils were detected in outlying areas surrounding this residence. As a result, the Department adopted two emergency regulations; 1) Section 3591.19, *Diaprepes abbreviatus* Eradication Area (effective September 28, 2005) and, 2) Section 3433, Diaprepes Root Weevil Interior Quarantine (effective October 3, 2005). The Department subsequently detected numerous adult beetles in the Long Beach area of Los Angeles County and made appropriate emergency amendments to both regulations.

An emergency quarantine response is necessary to ensure the Diaprepes root weevil does not continue to multiply and spread to other uninfested areas of the State. Adult Diaprepes root weevils will continue emergence, and although it is a strong flyer, generally it only flies up to 300 meters to find suitable host material. The real threat of long distance spread is through the human assisted movement of infested plants or soil.

Diaprepes root weevil is a major destructive pest of citrus and many other commercial crops grown in Florida including ornamental plants and root crops. Diaprepes root weevil is a native of the Caribbean Islands where at least 19 additional *Diaprepes* species, not currently detected in the United States, are known to occur. Diaprepes root weevil was first detected in Florida in 1964 near the town of Apopka in Orange County. The weevil has now spread to parts of most agricultural areas outside of the original Apopka site. It is thought to have been introduced into Florida on ornamental plants imported from Puerto Rico.

While this pest is widespread in Florida, the Florida Department of Agriculture and Consumer Services (FDACS) still considers it a quarantine pest of concern and requires all Florida nurseries to be free of the Diaprepes root weevil in order to ship intrastate or interstate. Infested nurseries are required to be under a compliance agreement that enables the nursery stock to move from the nursery once all the conditions in the agreement are met. These conditions may include removal of plants from growing media, shipping plants bareroot, or the application of approved chemical treatment.

Diaprepes root weevils have been recently detected in the Texas Rio Grande Valley. As a result, the Texas Department of Agriculture also adopted an interior quarantine against the weevil and is also conducting an eradication program.

California also maintains an exterior quarantine regulation, Section 3279, West Indian Sugarcane Root Borer, to prevent the introduction of this weevil from infested states.

In Florida, adult weevils may emerge from the soil throughout the year. However, there are two peak emergence periods of adult activity in the spring (May through June) and fall (August through September). Mating and egg-laying occur throughout this period. Eggs are generally laid in clusters of from 25 to 250 between mature leaf surfaces held together by an adhesive produced by the adult female. These eggs can also be laid on a single

leaf, by folding parts of the leaf to cover the egg mass. A single female may lay as many as 5,000 eggs during her life of three to four months.

The eggs hatch in 7-10 days after they are laid. The larvae drop to the ground, burrow into the soil, and begin to feed on fibrous roots of host plants, moving to larger roots as they mature. The length of time spent in the larval and pupal stages varies from several months to more than a year. After a period of feeding, the larvae pupate in the soil, emerging later as adults. The total life cycle of any single weevil may last from six to 15 months resulting in multiple overlapping generations.

There is no comprehensive estimate of the total economic losses caused by the weevil to the environment and the agricultural industry in Florida. The current estimate for damage caused by the Diaprepes root weevil in Florida is approximately $70 million per year. For individual citrus growers, the Diaprepes root weevil can result in a total loss. According to FDACS, over 30,000 acres of citrus in 23 counties are currently known to be infested. For ornamentals, root crops, and tropical fruit, more than 1,000 acres in two counties are known to be infested. Grower returns have been negatively affected by both reduced yields and increased production costs. Without adequate control measures, this pest can render a citrus grove operation non-profitable.

Adult Diaprepes root weevils feed on young, tender, citrus foliage and occasionally on fruit. The primary economic damage is caused by larvae feeding on roots and the crown area. A few large larvae can girdle and render a mature, healthy citrus tree non-productive. This behavior apparently makes Diaprepes root weevils unique among the citrus root weevil species found in the United States. Additionally, combinations of other root-debilitating factors such as Phytophthora root rot (*Phytophthora* spp.), nematodes and/or moisture stress can hasten decline of an infested tree.

Adult and larval Diaprepes root weevils also attack ornamental trees and agronomic root crops. Some crops may show only adult feeding damage and others are damaged only by

larvae. The presence of adult Diaprepes root weevils is indicated by irregular semicircular feeding areas on the leaf edges of ornamental crops, similar to citrus. Adult weevil injury can also be observed on palm flowers as well as roots. It is suspected that the spread of this pest to California's date production areas would also have a negative economic impact on that industry. Adults are generally found on plants at the time of leaf flushing but can also be found continuously on ornamental trees with permanent tender foliage.

Phytophthora spp. root rot organisms commonly infect the margin of larval feeding sites in the root bark. This may cause girdling of large structural roots and accelerated tree decline on *Phytophthora* susceptible and moderately resistant rootstocks.

Many ornamental trees support advanced larval injury before external symptoms (leaf yellowing, wilting, and defoliation) are observed. Other hosts, such as oaks, appear to be susceptible to root-debilitating factors such as Phytophthora root rot following larval feeding. In California, Phytophthora root rot already contributes significantly to the mortality of urban and rangeland oaks.

Crops with a succulent root system, fleshy roots, or tubers (cassava, malanga, potatoes) can tolerate several larvae before any external symptoms appear. Damage to root crops in Florida is manifested by shallow to deep larval feeding on fleshy roots or tubers. External damage to these root crops may lead to invasion by secondary fungal pathogens that cause rotting and prevent such crops from being sold on the fresh market.

The Diaprepes root weevil has the capability of causing significant irreparable harm to California's agricultural industry and environment. The Department has determined that to ensure it conducts the most efficient and effective quarantine project with the greatest chances of success, quarantine activities will need to begin as soon as possible to prevent the artificial spread of this pest to uninfested areas of California.

The proposed amendment of Section 3433 will establish the area surrounding La Jolla (University Center) within San Diego County as an additional area under quarantine for Diaprepes root weevil. The proposed quarantine area is the smallest area possible, which includes a buffer area and is based upon the known natural dispersal of this weevil.

The effect of the adoption of this regulation will be to implement the State's authority to perform quarantine activities against Diaprepes root weevil in the area under quarantine surrounding La Jolla. To prevent the spread of the Diaprepes root weevil to non-infested areas in order to protect California's agricultural industry and environment, it is necessary to begin quarantine activities against the Diaprepes root weevil immediately. Therefore, it is necessary to amend this regulation as an emergency action.

Authority and Reference Citations

Authority: Sections 407, 3154, 5301, 5302, and 5322, Food and Agricultural Code.
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Informative Digest

Existing law provides that the Secretary may establish, maintain, and enforce such regulations as he deems necessary to protect the agricultural industry of California from the spread of pests. The Secretary may make and enforce such regulations as he deems necessary to prevent any plant or thing which is, or is liable to be, infested by or which might act as a carrier of any pest, from passing over any quarantine boundary which is established.

Section 3433. Diaprepes Root Weevil Interior Quarantine.

The amendment of Section 3433 will establish Diaprepes Root Weevil (*Diaprepes abbreviatus*) as the pest under quarantine, approximately four square miles surrounding the La Jolla area of San Diego County, California, as an additional area under quarantine, the articles and commodities regulated and the restrictions on the movement within or from the

quarantine area with respect to Diaprepes root weevil. The effect of the amendment of this regulation is to provide authority for the State to perform quarantine activities against Diaprepes root weevil in the approximately four square mile area surrounding the La Jolla area of San Diego County.

Mandate on Local Agencies or School Districts

The California Department of Food and Agriculture has determined that the proposed adoption of Section 3433 does not impose a mandate on local agencies or school districts, except the agricultural commissioner of San Diego County has a duty to enforce the regulation. No reimbursement is required under Section 17561 of the Government Code because the San Diego County Agricultural Commissioner requested the change in regulations.

Cost Estimate

The Department has also determined that the regulation will involve: 1) no additional costs or savings to any state agency because funds for state costs are already appropriated, 2) no nondiscretionary costs or savings to local agencies or school districts, 3) no reimbursable savings to local agencies or costs or savings to school districts under Section 17561 of the Government Code, 4) funds for reimbursement for costs to local agencies have already been appropriated, and 5) no costs or savings in federal funding to the State.